

HEALTHGRID

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HealthGrid is a computational environment of shared resources in which heterogeneous and dispersed biomedical data can be accessed, mined and computed with over wide area communications. HealthGrid leverages the methodologies of grid architecture and technology features for scalable secure interoperability.

Users of HealthGrids require transparent on-demand access to and visualization of a diversity of distributed information for collaborative exploration and diagnosis of cancer and other diseases (collaboration and data grid), modeling and monitoring of the patterns of origination, spread and containment of infectious diseases (knowledge, data and computation grid), systematic understanding of disease processes in support of predictive medicine based on physiological modeling and preventative methods (computational and knowledge grid) and the integration of clinical and research data in support of translational medicine (data and knowledge grid).

HealthGrid applications include the association of post-genomic medicine and data, epidemiology, medical imaging and simulation, and eventually the development of individualized healthcare.

The HealthGrid association gathers grid-related projects to acquire and share experience, promote the grid concept in the biomedical community and identify specific requirements for grid technologies.

GRID technology may help answer the following questions:

- How to address the needs of the multiple laboratories collecting genomics and post-genomics data and willing to analyze them in an up-to-date and competitive environment?
- How to provide the massive computational power needed in medical informatics?
- How to provide easily accessible data and computing power for both scientists and medical staff?
- And finally: How to make information on all levels from molecular to population accessible and manipulable and thus understandable to the large variety of people who could benefit from such knowledge. [2]

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[1] http://www.globus.org/grid_software/ecology.php

[2] <http://www.healthgrid.org>